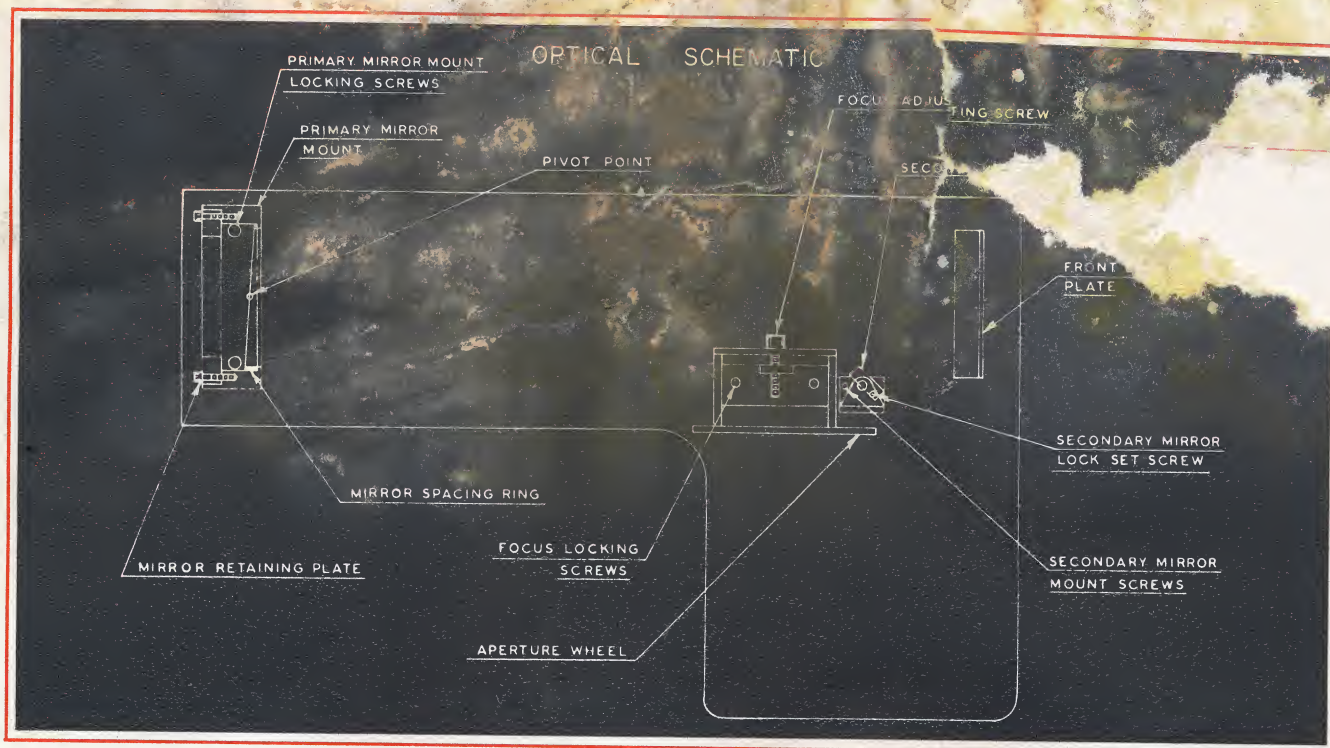


# IR COLLIMATORS

## SERIES 230



TYPICAL OPTICAL LAYOUT

SPECIFICATIONS	MODEL 230	MODEL 232	MODEL 235
CLEAR APERTURE	5"	8"	8"
FOCAL LENGTH	25"	40"	36"
ENTRANCE APERTURE SIZES	.250", .137", .079", .0433", .0250", .0137", .0079"		.005", .007", .010", .014", .020", .028", .040", .056", .080", .112", plus provision for 5 additional apertures.
RELATIVE INTENSITY RATIOS	1000, 300, 100, 30, 10, 3, 1		512, 256, 128, 64, 32, 16, 8, 4, 2, 1
REFLECTANCE	Greater than 90% from less than .3 microns to 20 microns		
COLLIMATION ACCURACY	.2 milliradians		
WEIGHT (pounds)	56	175	39
SIZE (inches - L x W x H)	31.75 x 19.50 x 14	52 x 26 x 18	12 x 12 x 40

## AVAILABLE IRI ACCESSORIES

Selective Spectral Filter Wheel  
 Radiation Shutter (Manual or remote)  
 Energy Modulators, Fixed or Variable Frequency  
 Energy Sources . . . IR Blackbody, Tungsten, Nernst Glower, Mercury

INFRARED INDUSTRIES, INC.  
 Radiation Electronics Division

P. O. BOX 989, SANTA BARBARA, CALIFORNIA  
 TELEPHONE (805) 684-4181 TWX: (805) 451-7252

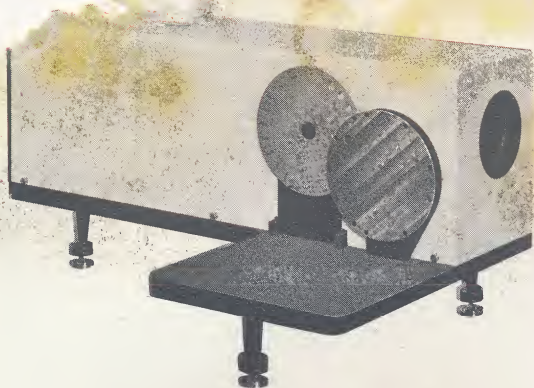




# OFF-AXIS COLLIMATORS

SERIES 230

• TECHNICAL DATA



MODELS 230 & 232



MODEL 235

## FEATURES

- CLEAR EXIT APERTURE • SELECTABLE PRECISION ENTRANCE APERTURES
- SELF LEVELING • INFRARED - VISIBLE - ULTRAVIOLET • ADJUSTABLE FOCUS
- EASY ACCESS CONSTRUCTION • USE WITH ANY SOURCE

## DESCRIPTION

The IRI Models 230 and 232 Collimators are essentially an off-axis parabola, a secondary front surfaced mirror and an accurately selected set of apertures at the focus of the parabola. The entire assembly is mounted on a self-leveling, temperature compensated housing of rugged cast aluminum and Meehanite. The housing assembly is provided with a universal mounting base, adaptable to all energy sources.

The Model 235 offers the important features of the 230 series, and a degree of precision never before found in a light weight, portable field service collimator. Although an eight inch clear aperture collimator, the Model 235 measures only 12 x 12 x 40 inches, and weighs 39 pounds. It receives energy directly from externally mounted sources, and is not furnished with a mounting plate, levelers or modulator adaptor.

The radiation received from a source at a large distance consists of essentially parallel rays. Since many infrared systems are designed to measure energy from distant sources, it is convenient to have a laboratory source of parallel radiation of known temperature. The use of an off-axis parabola provides a collimated beam of infrared radiation that has no obstructions in the aperture, and with equal collimation accuracy at all wavelengths. This latter property of a reflector system makes it possible to adjust the system with radiation in the visible region with assurance that the adjustment will be equally valid in the infrared spectrum.

INFRARED INDUSTRIES, INC.

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